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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/329,258 | 06/10/1999 | KLAUS BUECHER | 076397/0124 | 7864 |

7590 03/24/2003

FOLEY AND LARDNER
3000 K STREET NW SUITE 500
WASHINGTON, DC 200075109

EXAMINER

FORTUNA, ANA M

| ART UNIT | PAPER NUMBER |
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1723

DATE MAILED: 03/24/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

AG

Office Action Summary

Application No.
09/329,258

Applicant(s)
Buecher et al.

Examiner
Ana Fortuna

Art Unit
1723



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 20, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above, claim(s) 7-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 15-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

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Continued Prosecution Application

1. The request filed on 2/20/2003 for a Continued Prosecution Application (CPA) under 37 CAR 1.53(d) based on parent Application No. 09/329,258 is acceptable and a CPA has been established. An action on the CPA follows.

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 15-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt et al.(5.562.827) (equivalent to WO 95/05889 of record) in view of McDermott, Jr. et al (5,147,541)(‘541). Reference ‘827 discloses the spiral wound or membrane assembly including the core, membrane and sheath surrounding the membrane element and core, and comprising a polymer cord, lamina or fabric made of heat resistant material (abstract, Fig. 1, column 2, lines 1-43). Regarding claim 1, reference ‘827 fails to disclose fusing the membrane in the area of overlap. Reference (‘541) discloses the spiral wound membrane module having the core and sheath, the sheath is formed from polymer film or membrane which overlap one another, and have been fused to one another in the sealed or overlapped area (abstract, figure 3, column 5, lines 63-68. column 6. lines 1-30). Reference ‘541 discloses providing a folded membrane film

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with a spacer between the two membrane films and applying heat and pressure to fuse the membrane and spacer or backing material in the area of fold and also fusing in the area of aligned ends is also disclosed (column 6, lines 31-57). It would have been obvious to one skilled in the art at the time the invention was made to provide the module of reference '827 with the membranes sealed to the core and fused at the sealed edge, as disclosed in '541), e.g. to hold the membrane in place in the wound module configuration. Regarding claim 2, the sheath made of polyester and polypropylene is disclosed in '827 (column 2, lines 1-16, column 6, lines 3-8). As to claim 3, the sheath having a functionalized surface (as defined is disclosed), e.g. a polyalkylene surface (melting surface). Regarding claim 4, the sheath as an extruded network is disclosed (column 2, second paragraph). Regarding claims 5-6, the composite sheath and the materials having the inherent melting points are disclosed, e.g. polyester, polypropylene, etc. As to claims 15-20, the membrane configuration is disclosed by '541. As to claims 21-26, the spiral wound membrane module further having the sheath thickness claimed is disclosed in '827, e.g. Cord diameter of about 0.8 to 2 mm (column 2, first paragraph). It would have been obvious to one skilled in the art at the time the invention was made to select conventional spiral wound configuration for the assembly and further improve the membrane sterilization and heat treatment. Making the module of heat resistant material, e.g. membrane, core, and spacers and sheath (column 2, second paragraph).

3. Claims 7-9 have not been treated on the merits, because they are part of the non-elected invention directed to the process of making the assembly.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana Fortuna whose telephone number is (703) 308-3857. The examiner can normally be reached on Monday-Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 for regular responses, and (703)872-9311 for after finals.

Ana Fortuna

March 20, 2003



ANA FORTUNA
PRIMARY EXAMINER